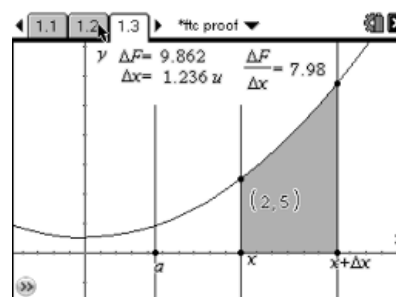


5.4 Fundamental Theorem of Calculus

Run ftc proof and answer the questions in the document

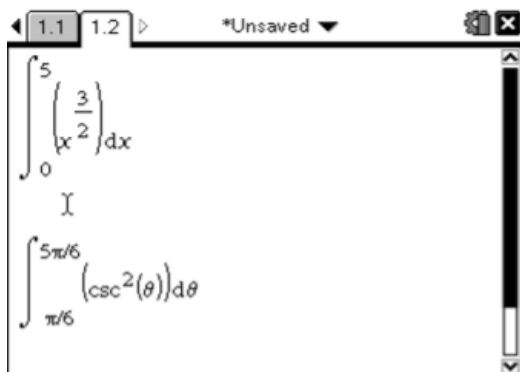


Nov 13-3:06 PM

State both parts of the Fundamental Theorem of Calculus

Nov 13-4:57 PM

Evaluate the following definite integrals. Support your answer with Nspire



The Nspire calculator interface shows two definite integrals. The first integral is $\int_0^5 \left(\frac{3}{x^2}\right) dx$. The second integral is $\int_{\pi/6}^{5\pi/6} (\csc^2(\theta)) d\theta$. The interface includes a menu bar with options 1.1, 1.2, and *Unsaved, and a window title bar with a close button.

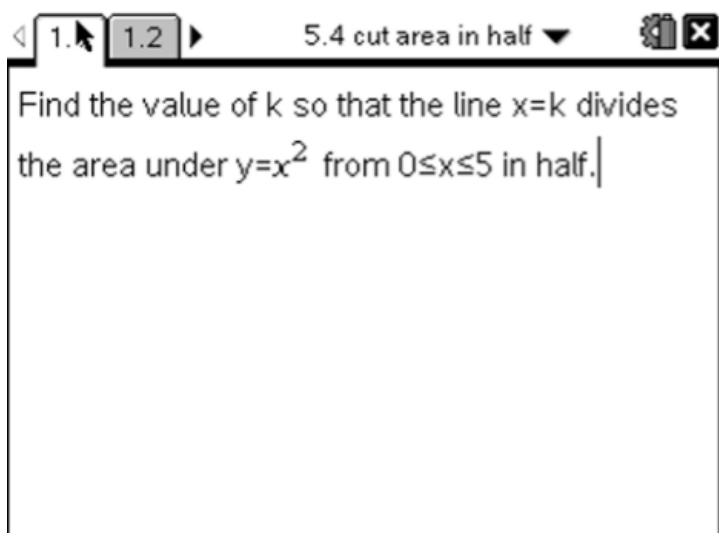
Nov 13-3:35 PM

Find the total area of the region between the curve and the x-axis



The Nspire calculator interface shows the equation $y = x^3 - 4x$ for $-2 \leq x \leq 2$. The interface includes a menu bar with options 1.1, 1.2, 1.3, and *Unsaved, and a window title bar with a close button.

Nov 13-4:17 PM



The screenshot shows a presentation window with a title bar containing navigation icons, slide numbers '1.' and '1.2', and the title '5.4 cut area in half'. The main content area contains the following text:

Find the value of k so that the line $x=k$ divides the area under $y=x^2$ from $0 \leq x \leq 5$ in half.

Nov 13-4:23 PM